

1. Package summary

Terminal position code B (bottom)

Package type descriptive code LFBGA196

Package type industry code LFBGA196

Package style descriptive code LFBGA (low profile fine-pitch ball grid array)

Package body material type P (plastic)

Mounting method type S (surface mount)

Issue date26-3-2018Manufacturer package code98ASA01198D

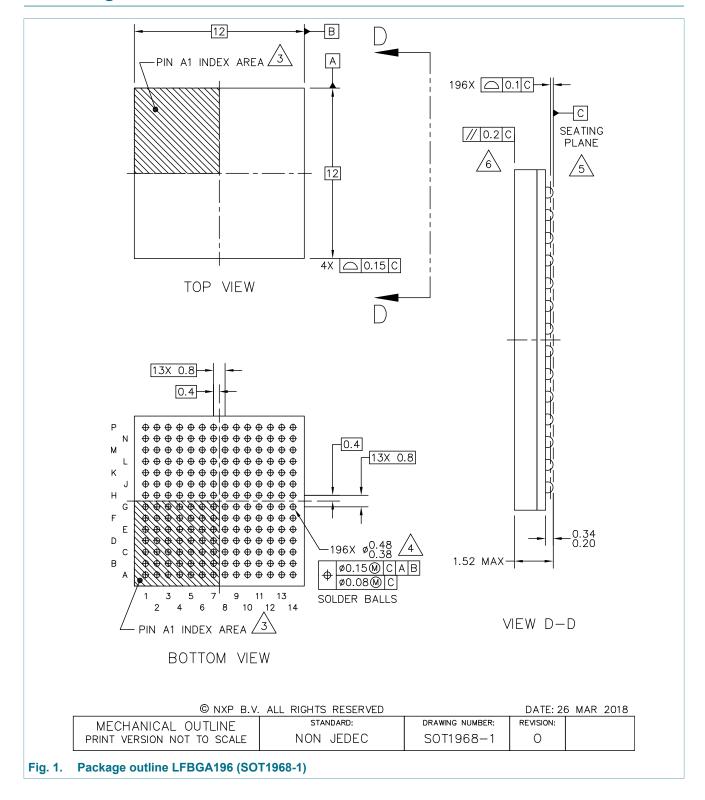
Table 1. Package summary

Symbol	Parameter	Min	Тур	Nom	Max	Unit
D	package length	_	-	12	-	mm
E	package width	-	-	12	-	mm
Α	seated height	-	-	1.37	-	mm
е	nominal pitch	-	-	0.8	_	mm
n_2	actual quantity of termination	-	-	196	_	A/A



LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm body

2. Package outline



LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS.

DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

PIN A1 FEATURE SHAPE, SIZE AND LOCATION MAY VARY.

MAXIMUM SOLDER BALL DIAMETER MEASURED PARALLEL TO DATUM C. DATUM C, THE SEATING PLANE, IS DETERMINED BY THE SPHERICAL CROWNS OF THE

SOLDER BALLS.

PARALLELISM MEASUREMENT SHALL EXCLUDE ANY EFFECT OF MARK ON TOP SURFACE

© NXP B.V. ALL RIGHTS RESERVED DATE: 26 MAR 2018 STANDARD: DRAWING NUMBER: REVISION: MECHANICAL OUTLINE NON JEDEC SOT1968-1 \bigcirc PRINT VERSION NOT TO SCALE

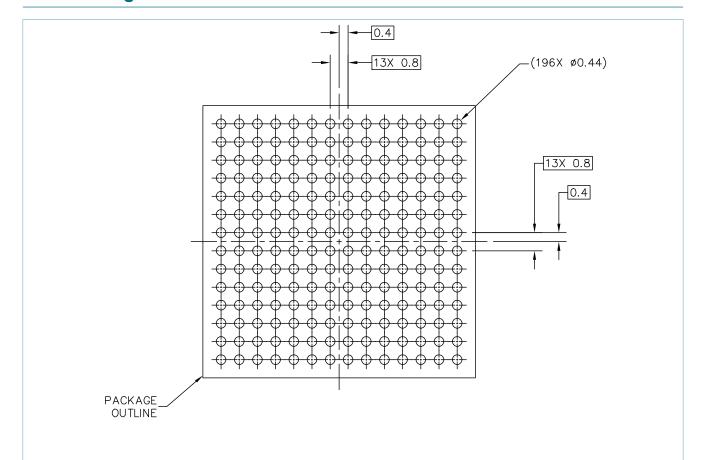
Package outline LFBGA196 (SOT1968-1)

SOT1968-1

© NXP B.V. 2018. All rights reserved

LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm body

3. Soldering



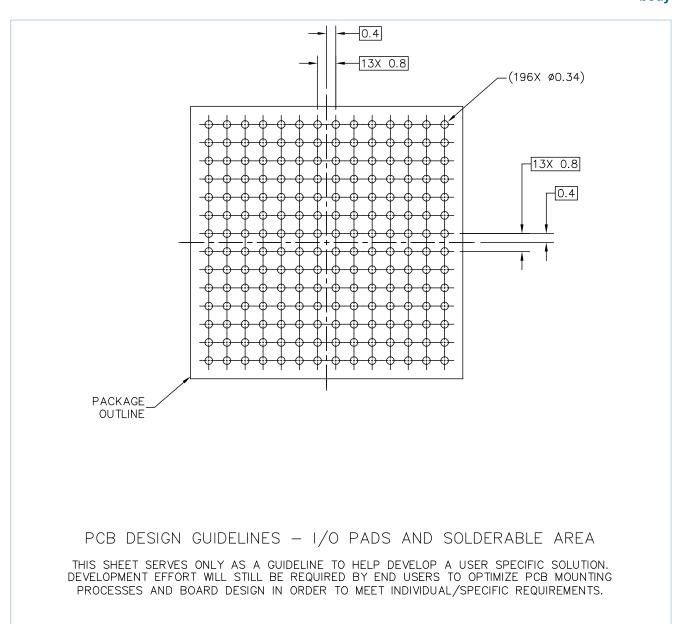
PCB DESIGN GUIDELINES - SOLDER MASK OPENING PATTERN

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

© NXP B.V. ALL RIGHTS RESERVED				DATE: 26	6 MAR 2018
	MECHANICAL OUTLINE	STANDARD:	DRAWING NUMBER:	REVISION:	
	PRINT VERSION NOT TO SCALE	NON JEDEC	SOT1968-1	0	

Fig. 3. Reflow soldering footprint for LFBGA196 (SOT1968-1)

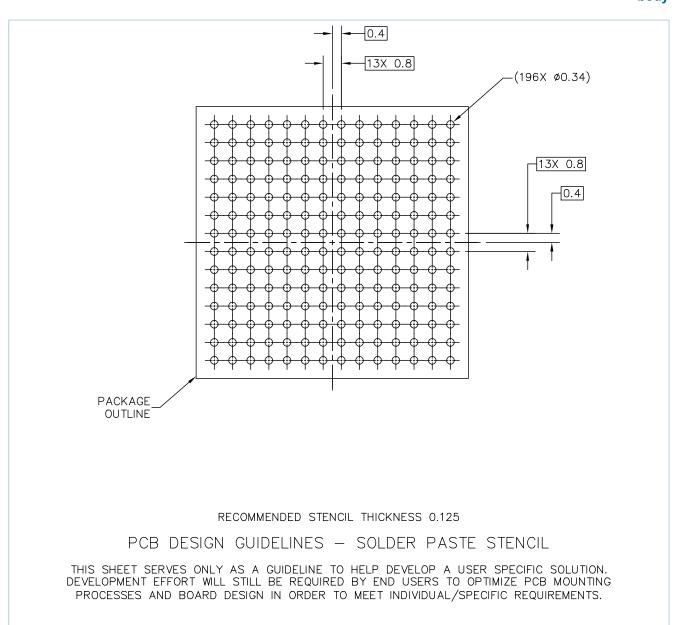
LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm body



© NXP B.V. ALL RIGHTS RESERVED			DATE: 2	6 MAR 2018
MECHANICAL OUTLINE	STANDARD:	DRAWING NUMBER:	REVISION:	
PRINT VERSION NOT TO SCALE	NON JEDEC	SOT1968-1	0	

Fig. 4. Reflow soldering footprint part2 for LFBGA196 (SOT1968-1)

LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm body



© NXP B.V.	. ALL RIGHTS RESERVED		DATE: 26	6 MAR 2018
MECHANICAL OUTLINE	STANDARD:	DRAWING NUMBER:	REVISION:	
PRINT VERSION NOT TO SCALE	NON JEDEC	SOT1968-1	0	

Fig. 5. Reflow soldering footprint part3 for LFBGA196 (SOT1968-1)

LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm

4. Legal information

Disclaimers

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, NXP Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. NXP Semiconductors takes no responsibility for the content in this document if provided by an information source outside of NXP Semiconductors.

In no event shall NXP Semiconductors be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, NXP Semiconductors' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the *Terms and conditions of commercial sale* of NXP Semiconductors.

Right to make changes — NXP Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

LFBGA196, low profile fine pitch ball grid array, 196 terminals, 0.8 mm pitch, 12 mm x 12 mm x 1.37 mm

5. Contents

1.	Package summary	1
2.	Package outline	2
3.	Soldering	4
4.	Legal information	7
© N	IXP R V 2018 All rights reserved	_

For more information, please visit: http://www.nxp.com For sales office addresses, please send an email to: salesaddresses@nxp.com Date of release: 12 April 2018